

DATE: December 17, 2003

SUBJECT: Status on Site Activities at Tar Creek Superfund Site, Ottawa County, Oklahoma

BACKGROUND:

In 1983, the site was placed on the National Priorities List (NPL). To fully address the area, the site was divided into four operable units:

- Operable Unit 1 (OU1) focused on surface and ground water;
- OU2 addressed lead contaminated surface soils found on residential properties and High Access Areas (i.e., schools, day cares, parks, Indian lands, etc.);
- OU3 addressed abandoned mining chemicals at the Eagle-Picher Office Complex, located in Cardin, Ottawa County, Oklahoma. The abandoned chemicals were removed during a removal action and no further action is required on this operable unit;
- OU4 - will address the mining wastes (i.e., chat piles, flotation ponds, chat bases).

Two Records of Decision (ROD) and two 5-Year Reviews have been performed, to date, on this site. The first ROD was for OU1 (signed June 6, 1984) and addressed: 1) the surface water degradation by the discharge of acid mine water; and 2) the threat of contamination of the Roubidoux Aquifer, the regional water supply. Dikes and berms were constructed to prevent surface water from entering the mines and recharging the Boone Aquifer, which would reduce the acid discharge to the surface water. Deep abandoned wells with cracked casings were also plugged to prevent the downward migration of acid mine water into a drinking water source (the Roubidoux Aquifer).

A second ROD was signed on August 27, 1997, which addressed lead contaminated surface soils in residential areas. Remediation of lead contaminated properties has been on going since 1996. In the year 2000, approximately 1,647 lead-contaminated properties were remediated at a cost of approximately 45 million dollars. Superfund monies have been disbursed to the county, cities and towns to provide for repair to county, city and town roads.

Two-Five Year Reviews (April 1994 and April 2000) have been performed to determine/monitor the effectiveness of the above actions. The findings of the last report determined that the environmental components of the Water Quality Standards are not being met, but do not pose a human health threat. The reviews determined that the action taken was appropriate when balanced against the availability of Superfund monies for use at other sites. Furthermore, the massive costs associated with any engineering solution for surface water contamination that poses an environmental threat (but not a human health threat) in the Tar Creek Basin are prohibitively high, and expenditures to meet those costs would drain Superfund dollars needed for other sites. An After-Action Monitoring Program began in 1987 to determine if the poor quality of drinking water in several Roubidoux wells is due to acid mine water infiltrating directly into the Roubidoux Aquifer from the Boone Formation, or if the acid mine water is migrating into the Roubidoux Aquifer through deteriorated

casings in the municipal water wells.

Grants continue to be awarded to the State and Quapaw Tribe through Cooperative Agreements, Management Assistance, Technical Assistance Grant, etc., to participate in the Superfund Process including the implementation of an After Action Monitoring program on OU1, programs with the county health department, two Pilot Remedial Investigation/Feasibility Study on Indian properties, as well as activities associated with OU2 and OU4.

A Memorandum of Understanding (MOU) was signed in May 2003 among the EPA, the Department of Interior (DOI), and the U.S. Army Corps of Engineers. The purpose of this MOU is to facilitate a coordinated response to environmental contamination, physical safety concerns (including open mine shafts, subsidence, and flooding), and poor economic conditions at the Tar Creek Mining Area) of Oklahoma.

Negotiations for the Remedial Investigation/Feasibility (RI/FS) for OU4 were initiated in December 2000, with the issuance of a Special Notice letter, Administrative Order on Consent (AOC) and a Statement of Work (SOW) to the Responsible Parties. From December 2000 to January 2003, negotiations were lengthy and very difficult due to: 1) the amount of time required between the Responsible Parties to work out a funding agreement among themselves; 2) the complexity of the site; 3) some of the Responsible Parties (i.e., ASARCO, NL Industries, Doe Run) pulling out of the negotiations; and, 4) Department of Justice's request to the Region to suspend negotiations until language was established in the Administrative Order on Consent for the federal Responsible Party. In February 2003, EPA received clearance from the Department of Justice to move forward with negotiations with the Oklahoma Department of Environmental Quality (ODEQ) and the Quapaw Tribe for the RI/FS.

CURRENT STATUS:

- OU1 - The Oklahoma Department of Environmental Quality (ODEQ) is continuing to monitor Roubidoux wells and plug abandoned wells, through the After Action Monitoring Program.
- OU2 - The current phase of residential cleanups completed at the end of October 2003. Over 2,000 residential yards and high access areas have been remediated since the inception of cleanup in Quapaw, Cardin, Picher, Commerce, and North Miami. Soil remediation and community education have helped reduce the number of children with elevated blood lead by 50 percent. EPA is currently identifying remaining properties in the Tar Creek area that may need remediation. As of December 15, 2003 approximately 634 properties are identified that may require sampling. In coordination with the State, EPA developed a "Decision matrix for Prioritizing remaining residential Properties and Public Areas" to prioritize additional clean ups. At this time, 78 residential properties with children six years old and under are being sampled.
- Negotiation with two mining companies (Blue Tee and Gold Fields) and the Department of Interior to perform and finance a Remedial Investigation/Feasibility Study on OU4, which includes chat piles, chat bases and flotation ponds, was completed. The AOC was signed on

December 9, 2003.

- Congressional interest remains high with Senators Inhofe and Nickles, and Congressman Carson. EPA Region 6's Regional Administrator will attend a town hall meeting with Congressman Carson August 29 in Tar Creek and met with Senators Inhofe and Nickles in Washington on several occasions.

TECHNICAL, LEGAL OR COMMUNITY CONCERNS:

- The public believes the funds expended to remediate this site are excessive and have done little to address the multiple problems that plague this site. As a result, residents in the towns Picher and Cardin, desire a buyout

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